

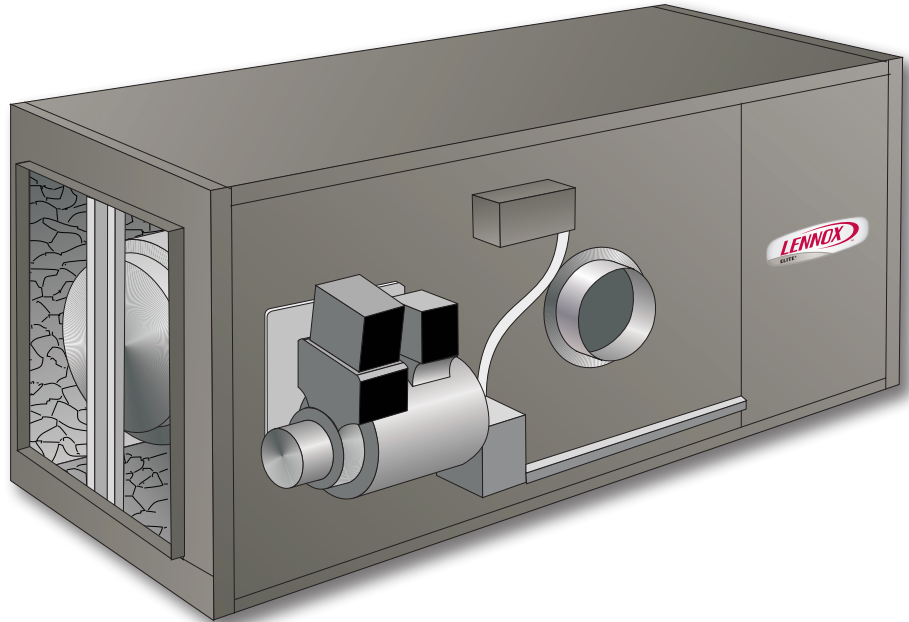


**OIL FURNACES**  
**ELO183DH**  
**ELITE® SERIES**  
**Horizontal/Downflow**

**RESIDENTIAL**  
**PRODUCT SPECIFICATIONS**

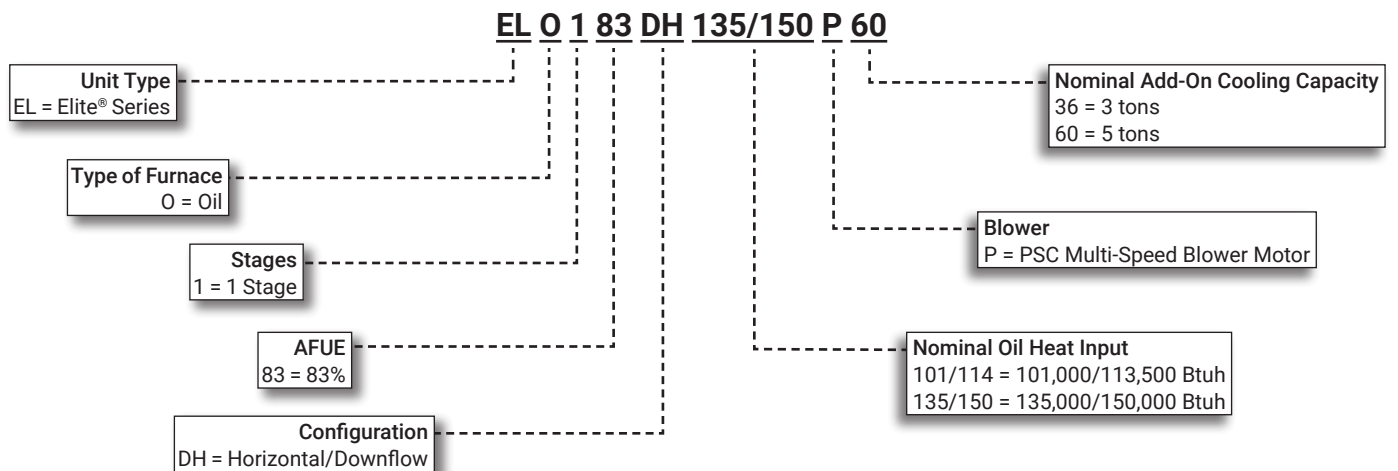
Bulletin No. 210630  
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Supersedes February 2019

**ELITE®**  
SERIES

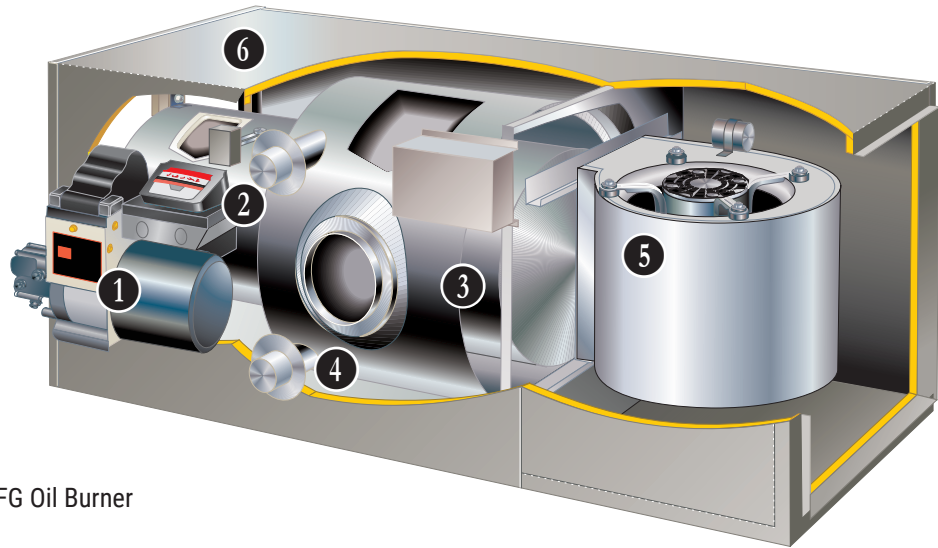


**AFUE - 83%**  
**Heating Input - 101,000 to 150,000 Btuh**  
**Nominal Add-on Cooling - 3 to 5 Ton**

**MODEL NUMBER IDENTIFICATION**



## FEATURE HIGHLIGHTS



1. Beckett™ Flame-Retention AFG Oil Burner
2. Advanced Burner Control
3. EZ Clean Heat Exchanger
4. Strategically Placed Cleaning Ports
5. Four-Speed Direct Drive Blower
6. Heavy Gauge Steel Cabinet

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## APPROVALS AND WARRANTY

### APPROVALS

- AHRI Certified
- ETL-Intertek listed
- Tested and rated according to US DOE test procedures and FTC labeling regulations
- Oil furnaces comply with US DOE Fan Efficiency Rating (FER) regulations

### WARRANTY

- Heat Exchanger:
  - Limited lifetime (twenty year transferable) in residential applications
  - Limited ten years in non-residential applications
- Oil Burner and all other covered components:
  - Limited five years in residential installations
  - Limited one year in non-residential installations

**NOTE** - Refer to Lennox Equipment Limited Warranty certificate included with unit for specific details.

## FEATURES

### APPLICATIONS

- Horizontal or downflow position
- Approved for reduced clearances to combustibles
- Lennox add-on indoor coils, high-efficiency air cleaners and humidifiers can easily be added to furnace
- Shipped factory assembled including the oil burner, with all controls installed and wired
- Factory test operated to ensure proper operation
- Can be installed on a slab or suspended in a crawl space, utility room or furnace room

**NOTE** - Units are not approved for attic installations.

### HEATING SYSTEM

#### 1 Beckett™ Flame-Retention AFG Oil Burner

- Smooth operating, high-pressure atomizing type burner blends oil and air to attain maximum efficiency
- Heavy duty motor drives quiet operating blower wheel and fuel pump
- Air turbo injector directs combustion air for smooth ignition
- Flame retention head is designed to agitate and mix oil and air for complete combustion and highest efficiency
- 120VAC primary safety control and ceramic glazed electrodes which provide a safe continuous flame
- Factory installed cadmium sulfide cell flame detector and primary safety control that provides complete shutdown in case of flame failure
- All burner parts are easily removable for servicing
- Burner is U.L. approved, C.S.A. certified and certified according to ANSI Standard 296.6
- Burner is factory installed in the unit, wired and fire tested

**NOTE** - Units are shipped for lower heating capacity operation.  
Nozzle must be field provided for field conversion to higher heating capacity.

#### 2 Advanced Burner Control



- 120 VAC primary safety control
- Controls the oil burner motor and igniter
- Control features:
  - Welded Relay Protection
  - Limited Reset and Limited Recycle
  - Reset Button - Resets burner if a restricted lockout is present
  - 3 Status Lights for System Monitoring and Diagnostics
    - **Yellow** - Pump Prime Mode
    - **Green** - Flame sensing (flashing = 60 second recycle)
    - **Red** - Restricted Lockout (flashing = Soft lockout) "Strike three" lockout protection to avoid nuisance calls
  - Valve-On Delay / Motor-Off Delay
  - 15 Second Lockout Time
  - Interrupted or Intermittent Duty Ignition
  - Technician Pump Priming Mode
  - Disable Function

## FEATURES

### HEATING SYSTEM (continued)

- 3 EZ Clean Heat Exchanger
  - Streamlined drum type heat exchanger exposes maximum surface area to the air stream with minimum air resistance
  - Constructed of heavy gauge steel for maximum service life
- 4
  - Strategically placed ports allow easy cleaning
  - Heavy gauge mounting channels are provided in cabinet base for support of heat exchanger

#### Combustion Chamber

- Specially designed alumina silica ceramic fiber combustion chamber
- Combustion chamber can withstand temperatures of up to 2550°F resulting in more complete combustion and higher efficiencies

#### Flame Inspection Tube

- Conveniently located at the front of the unit
- Opening is large enough for normal inspection mirror

#### Barometric Draft Control

- Furnished as standard equipment
- Field installed in flue pipe

#### Optional Accessories

##### Oil Filter

- Recommended for proper oil filtration
- See Specifications table for order number

##### Two-Stage Oil Pump

- See Specifications table for order number

### BLOWER

- 5
  - Quiet, four-speed, direct drive blower
  - PSC motor is statically and dynamically balanced, resiliently mounted and has integral overload protection
  - Blower assembly easily removed for servicing
  - A choice of blower speeds is available
  - See blower data tables
  - Change in blower speed with simple wiring change

### CABINET

- 6
  - Heavy gauge steel
  - Pre-painted, textured finish
  - Entire heating section is lined with foil faced fiberglass insulation keeping cabinet surface temperatures low
  - Large blower access door gives complete service access to blower
  - Blower compartment is completely insulated
  - All models have knockouts provided in cabinet for suspending in horizontal position. See dimension drawing

#### Air Flow Choice

- Units are shipped for horizontal installation with left hand air discharge
- For field change to right hand air discharge, rotate unit 180° end for end, and reposition burner and flue connection
- For conversion to downflow position, turn unit on end and reposition burner

#### Flue Outlet

- The flue is located on the front of the unit

### FILTERS

#### Optional Accessories

**NOTE** - Filters are not furnished and must be ordered separately.

#### Filter Kit

- Filter kit is available for field installation
- See Specifications table for order number

**NOTE** - ELO183DH101/114P36 kit is mounted internally and contains filter rails, stiffening rods and washable polyurethane filters.

**NOTE** - ELO183DH135/150P60 kit is mounted externally and contains filter cabinet, support rods and washable polyurethane filters.

### CONTROLS

#### Transformer and Terminal Strip

- 24 volt (40VA) control transformer and terminal strip are furnished as standard and factory installed

#### Fan and Limit Control

- Factory installed in opening on front of cabinet
- Time-start fan control assures proper blower operation
- Adjustable blower off temperature setting
- Control turns blower on 60 to 90 seconds after thermostat demand
- Limit control has fixed temperature setting
- Protects unit from abnormal operating conditions

#### Blower Cooling Relay

- Furnished with the unit and factory installed on the wiring junction box
- Relay activates blower operation during cooling cycle

#### Optional Accessories

#### Thermostat

- Thermostat (programmable/non-programmable) is not furnished with unit
- See Thermostat bulletins in Controls Section and Lennox Price Book for selection

## SPECIFICATIONS

Model Number		ELO183DH101/114P36	ELO183DH135/150P60
<b>Oil Heating Performance</b>	Input - Btuh	101,000	135,000
	<sup>1</sup> High Fire	113,500	150,000
	Output - Btuh	85,000	113,000
	<sup>1</sup> High Fire	95,000	126,000
	<sup>2</sup> AFUE	83%	83%
	Flue Size Diameter - in.	6	6
	Temperature rise range	45 - 75°F	45 - 75°F
<b>Oil Burner</b>	Nozzle rating - gph	.65	.85
	<sup>2</sup> High Fire	.75	1.00
	Nozzle spray angle	80° solid	80° solid
	Oil Burner Pump	1 Stage	1 Stage
	Oil Burner Pump Pressure - psig	140	140
<b>Indoor Blower</b>	Blower Motor Output - hp	1/2	3/4
	Nominal add-on cooling - Tons	2 to 3	3 to 5
	Blower wheel nom. diameter x width - in.	10 x 10	12 x 9
<b>Shipping weight - lbs. 1 package</b>		250	270
<b>Electrical</b>	Characteristics	120V-60hz-1ph	120V-60hz-1ph
	Maximum Overcurrent Protection (amps)	15	15
<b>OPTIONAL ACCESSORIES - ORDER SEPARATELY</b>			
<b>Filter Kit</b>		<b>35K05</b>	<b>35K06</b>
	Number & size of filters - in.	(2) 10-1/4 x 20-1/2 x 1	(2) 11-3/4 x 23-1/2 x 1
<b>Oil Filters</b>	10 micron with mounting bracket	<b>53P92</b>	<b>53P92</b>
	Filter restriction indicator gauge	<b>53P90</b>	<b>53P90</b>
<b>Two-Stage Oil Pump</b>	with solenoid	<b>71M18</b>	<b>71M18</b>

<sup>1</sup> Nozzle must be field provided for field conversion to higher heating input.

<sup>2</sup> Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

## BLOWER DATA

### ELO183DH101/114P36 BLOWER PERFORMANCE

External Static Pressure (in. w.g.)	Air Volume at Various Blower Speeds - cfm			
	High	Medium-High	Medium	Low
.20	1410	1340	1235	1090
.30	1320	1280	1175	1035
.40	1280	1190	1090	975
.50	1195	1100	1015	900
.60	1090	1015	920	855
.70	1000	900	845	770
.80	850	801	730	665
.90	790	680	600	545

NOTE - All air data is measured external to the unit with the air filter in place.

### ELO183DH135/150P60 BLOWER PERFORMANCE

External Static Pressure (in. w.g.)	Air Volume at Various Blower Speeds - cfm			
	High	Medium-High	Medium	Low
.20	2205	1770	1550	1295
.30	2120	1740	1530	1290
.40	2070	1745	1515	1280
.50	2005	1710	1485	1270
.60	1930	1640	1455	1255
.70	1850	1600	1405	1225
.80	1765	1515	1340	1170
.90	1675	1425	1300	1100

NOTE - All air data is measured external to the unit with the air filter in place.

## INSTALLATION CLEARANCES

### HORIZONTAL

### DOWNFLOW

- Approved for closet or alcove installation. When installing in a closet, two ventilation openings must be provided in the closet door; one 6 in. (152 mm) from the top and one 6 in. (152 mm) from the bottom. Each opening should be 7 x 14 in. (178 x 356 mm) for 101/114 models and 8 x 16 in. (203 x 406 mm) for 135/150 models

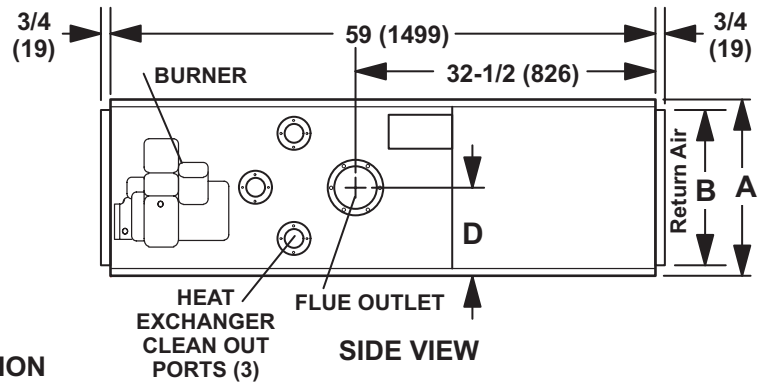
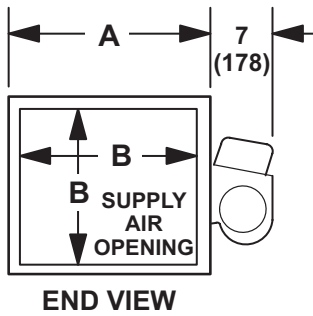
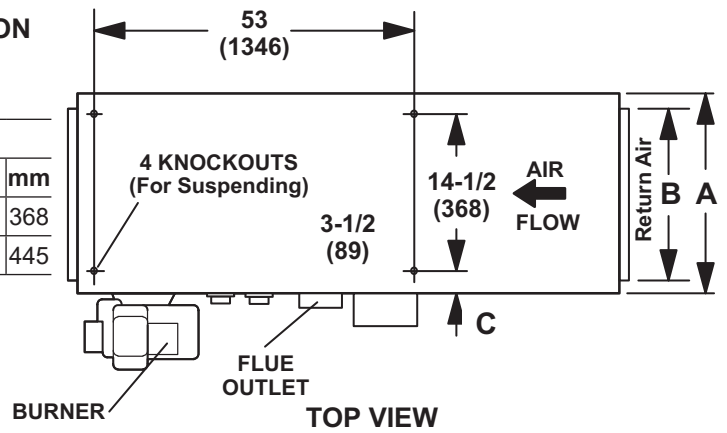
Top of Cabinet	3 in.	76 mm	Bottom of Plenum & Duct work	1 in.	25 mm
*Bottom & Rear of Cabinet	1 in.	25 mm	Plenum Sides	1 in.	25 mm
Front of Cabinet	24 in.	607 mm	Side of Cabinet	1 in.	25 mm
Service Clearance (Front)	24 in.	607 mm	Rear of Cabinet	1 in.	25 mm
End of Supply Plenum	0 in.	0 mm	Front of Cabinet	16 in.	406 mm
Supply Air Opening	0 in.	0 mm	Service Clearance (Front)	24 in.	610 mm
Return Air Opening	0 in.	0 mm	Flue Pipe Horizontal	1 in.	25 mm
Above Horiz. Warm Air Duct Within 3 ft. (1 m) of Furnace	0 in.	0 mm	Flue Pipe Vertical	7 in.	178 mm
Flue Pipe Horizontal	7 in.	178 mm	Return Air Opening	0 in.	0 mm
Flue Pipe Vertical	7 in.	178 mm	*Floor	*Combustible	*Combustible

\*NOTE - When furnace is installed on combustible floor, 1 in. (25 mm) spacer legs must be installed to elevate unit off of mounting surface.

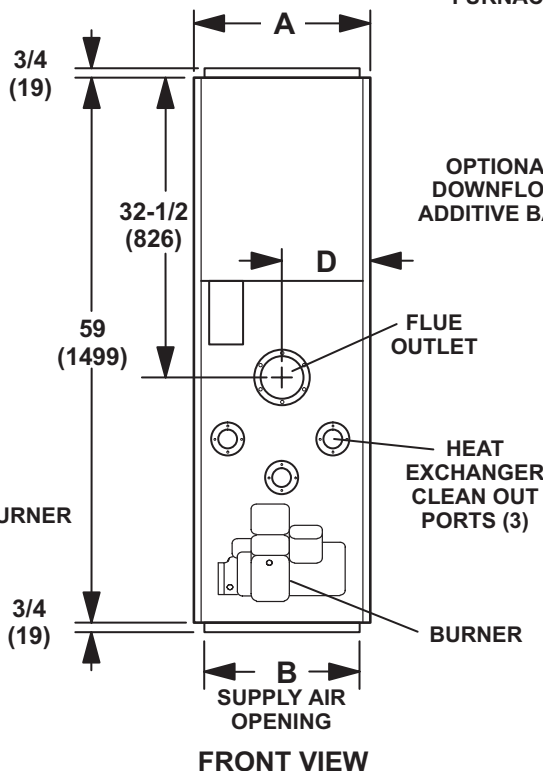
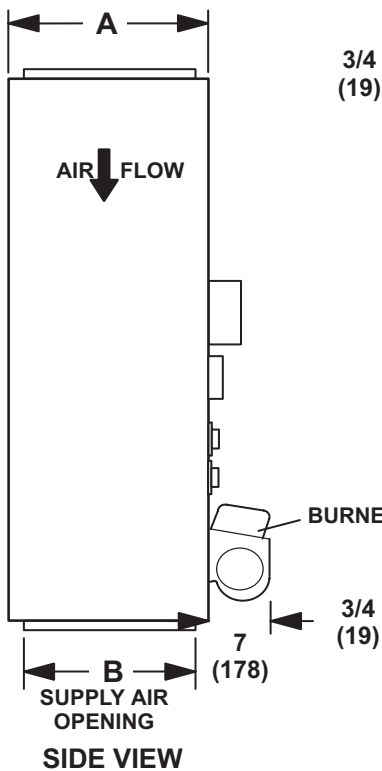
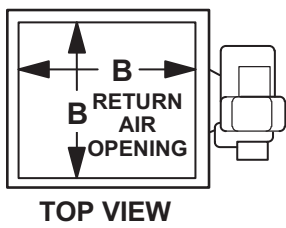
# DIMENSIONS

## HORIZONTAL POSITION

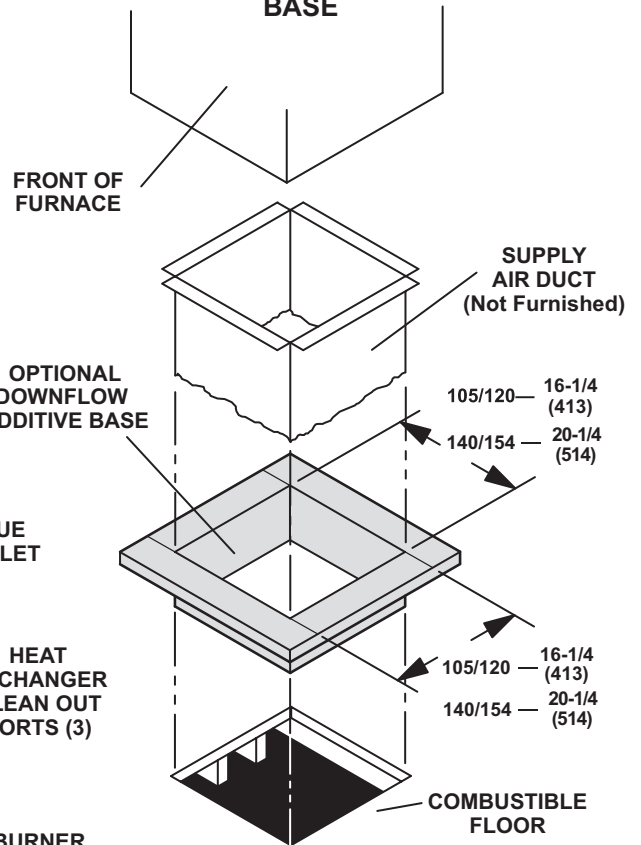
Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
ELO183DH101/114P36	20-1/2	521	18	457	10-1/4	260	14-1/2	368
ELO183DH135/150P60	23-1/2	597	21	533	11-3/8	289	17-1/2	445



## DOWNFLOW POSITION



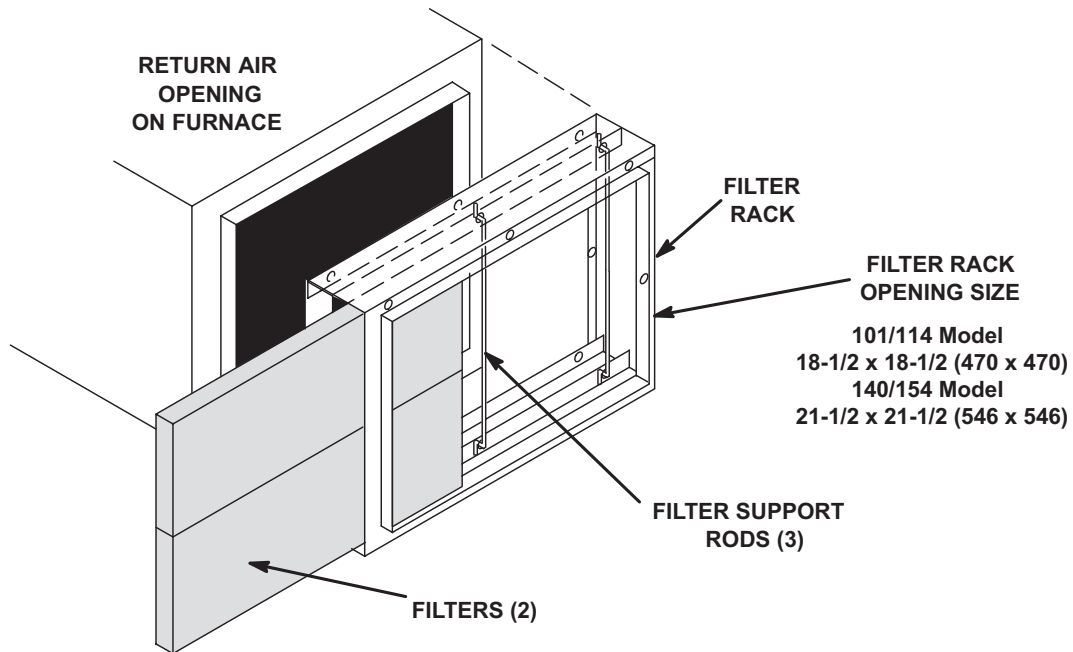
## OPTIONAL DOWNFLOW COMBUSTIBLE FLOOR BASE



Additive Base Raises Furnace  
3/4 in. (19 mm) Inch above Floor Level

## DIMENSIONS - ACCESSORIES

### OPTIONAL FILTER KIT



## REVISIONS

Sections	Description of Change
Approvals	Added US DOE Fan Efficiency Rating (FER) regulations approval.



Visit us at [www.lennox.com](http://www.lennox.com)

For the latest technical information, [www.LennoxPros.com](http://www.LennoxPros.com)

Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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